removed from the peritoneal cavity through the catheter and fresh dialysis solution is supplied through the catheter to the peritoneal cavity. This therapy at least partially replaces reduced or lost kidney function.

The dialysis catheters of the present invention are designed to enhance peritoneal dialysis therapy by delivering fresh dialysis solution into the peritoneal cavity at a location separated from the location at which the catheter removes spent dialysis solution from the peritoneal cavity. Referring to one example of Applicants' improved catheter shown in Fig. 1, a patient inflow section 18 is separated from a patient outflow section 22 so that the catheter delivers dialysis solution to the peritoneal cavity at a location separated from the location at which the catheter removes the dialysis solution. The dialysis solution contacts or washes across a relatively large surface area of the peritoneal membrane as the solution exits from the catheter patient inflow section, travels through the peritoneal cavity, and enters the catheter patient outflow section. It is believed that the dialysis therapy will be enhanced because the dialysis solution may contact a relatively large area of the patient's peritoneal cavity when traveling out of the patient inflow section 18 through the peritoneal cavity and into the patient outflow section 22.

Zakko, on the other hand, pertains to a catheter for chemical contact dissolution of gallstones or removing obstructions other than gallstones from organs or body cavities. See Zakko, column 7, lines 7-18. The Zakko catheter delivers fluid solvents to the obstruction to dissolve the obstruction and then aspirates the fluid solvents. See Zakko, column 9, lines 10-43. Because the Zakko catheter is designed for chemical contact dissolution of gallstones rather than peritoneal dialysis therapy, the Zakko catheter has a significantly different structure than Applicants' dialysis catheter. For example, the Zakko catheter has infusion and aspiration ports which are close together and positioned at the distal end of the catheter. Referring to Figs. 4 and 5 of Zakko, the infusion holes 60 and aspiration openings 62 are positioned at the distal elongated tapered tip 56. See column 17, line 43, column 18, line 8. Similarly, Fig. 7 of Zakko shows infusion holes 60' and aspiration openings 62' positioned next to each other and at the distal end 56'. See Zakko column 18, lines 9-21.

Applicants respectfully submit that the Zakko catheter has infusion and aspiration openings positioned close together at the distal end of the catheter because the purpose of the catheter is to supply and remove chemical solvents for an obstruction at a localized area.

Applicants further submit that it would be contrary to the purpose of the Zakko chemical dissolution catheter to move either the infusion or aspiration openings away from the distal end and separate the infusion and aspiration openings. The Zakko catheter infuses and aspirates inherently dangerous, toxic solvents to a localized obstruction. See Zakko, column 18, lines 34-41. If either the infusion or aspiration openings of the Zakko catheter were separated from the catheter distal end, the inherently dangerous, toxic solvents would unnecessarily contact portions of body organs, such as the gallbladder, when flowing from the infusion openings to the aspiration openings.

Turning to Applicants' claims, claim 1 calls for an implantable portion having a curved segment between an external patient portion and a distal end of the implantable portion. The curved segment has a first lumen port and the implantable portion has a second lumen port. Claim 1 calls for the second lumen port in the implantable portion to be spaced away from the first lumen port in the curved segment. Conversely, Zakko shows a catheter having a curved distal end which has both the infusion and aspiration openings.

As to claim 16, claim 16 pertains to a dialysis catheter. Conversely, Zakko pertains to a catheter for chemical contact dissolution of gallstones. Claim 16 calls for a patient inflow section extending from a connection section and having a patient inflow opening to a patient inflow lumen, a separation section extending from the patient inflow section, and a patient outflow section extending from the separation section and having a patient outflow opening to a patient outflow lumen. Applicants respectfully submit that Zakko does not disclose or suggest the claimed separation section. Indeed, the Office Action merely asserts that Zakko discloses a separation section extending from the patient inflow section but does not identify that alleged feature in Zakko.

As to claim 25, claim 25 pertains to a peritoneal dialysis catheter. Conversely, Zakko pertains to a catheter for a chemical contact dissolution of gallstones. Furthermore, claim 25 calls for second and fourth fluid openings being spaced apart from each other. Conversely, the Zakko catheter describes infusion and aspiration openings both located at the distal end.

As to claim 29, claim 29 pertains to a dialysis catheter. Conversely, Zakko pertains to a catheter for chemical contact dissolution of gallstones. Furthermore, Zakko does not disclose or suggest a separation section which extends from a non-linear patient inflow section to a patient

outflow section. Rather, the Zakko catheter has a distal end section which includes both the infusion and aspiration openings.

As to claim 33, claim 33 pertains to a peritoneal dialysis catheter. Conversely, Zakko pertains to a catheter for chemical contact dissolution of gallstones. Claim 33 calls for a non-linear section extending from a connection section and having a fluid port to a first lumen, a separation section extending from the non-linear section and a distal end section extending from the separation section and having a fluid port to a second lumen. Zakko simply does not disclose or suggest this claimed structure. The Zakko catheter does not have a non-linear section having a fluid port, a separation section from the non-linear section, and a distal end section having a fluid port and extending from the separation section.

As to claim 36, claim 36 has been amended to clarify that the claim pertains to a method of flowing fluid though a peritoneal dialysis catheter. Clearly, the Zakko catheter pertains to the catheter for chemical contact dissolution of gallstones or other obstructions and not a peritoneal dialysis catheter.

As to claim 37, claim 37 has been amended to clarify the claimed method. Particularly, claim 37 now calls for placing a patient inflow section of the catheter in an upper portion of the peritoneal cavity. This claim amendment is supported by the specification at page 23, lines 13-20 and Figs. 21 and 22. As shown in the example of Fig. 21, the method places the patient inflow section 18 in an upper portion of the peritoneal cavity. Conversely, Moncrief et al. does not show placing a patient inflow section in an upper portion of the peritoneal cavity. Rather, Moncrief et al. shows an intraperitoneal segment 7 having a tip 8 and apertures 9 positioned toward a lower end of the peritoneal cavity.

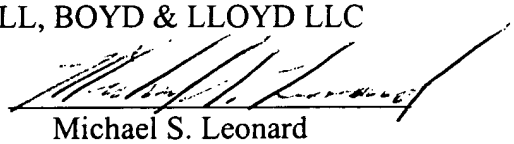
Regarding new claims 38-115, those claims also relate to peritoneal dialysis catheters, peritoneal dialysis systems, and methods of peritoneal dialysis. Thus, the new claims distinguish from the cited art for the same reasons.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Versions with Markings to Show Changes Made**."

For the foregoing reasons, Applicants respectfully submit that the Section 102 and Section 103 rejections have been overcome and request that they been withdrawn.

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY 

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Please amend claims 36 and 37 to read as follows:

36. (Amended) A method of flowing fluid through a peritoneal dialysis catheter comprising the steps of:

flowing fluid into a first lumen at a proximal end of the peritoneal dialysis catheter;

flowing the fluid in the first lumen to a curved path of the first lumen;

flowing the fluid in the curved path through a fluid opening in the curved path and out of the peritoneal dialysis catheter;

flowing the fluid which exited the peritoneal dialysis catheter from the opening in the curved path into a second lumen at a distal end of the peritoneal dialysis catheter; and

flowing the fluid in the second lumen to a fluid opening at the proximal end of the peritoneal dialysis catheter and out of the peritoneal dialysis catheter.

37. (Amended) A method of implanting a catheter into a patient comprising the steps of:

straightening the catheter with a stylet inside of the catheter;

inserting a distal end of the straightened catheter through an entrance incision into a peritoneal cavity of the patient while directing the straightened catheter downward;

removing part of the stylet from the catheter while advancing the catheter into the peritoneal cavity until the distal end is located in a lower area of the peritoneal cavity and a distal implant cuff is seated in a rectus muscle of the patient;

rotating a portion of the stylet and catheter outside of the patient downward and a portion of the stylet and catheter inside of the patient upward and placing a patient inflow section of the catheter in an upper portion of the peritoneal cavity;

pulling the catheter through a subcutaneous tunnel having an exit site below the entrance incision.